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A.D. 1872, 24th OCTOBER. N° 3160.

Effervescing Mixtures.

LETTERS PATENT to William Temple Cooper, of Oxford Street, in the County of Middlesex, Pharmaceutical Chemist, for the Invention of "IMPROVEMENTS IN PREPARING OR MAKING UP MEDICATED AND OTHER EFFERVESCENT MIXTURES."

Sealed the 28th January 1873, and dated the 24th October 1872.

PROVISIONAL SPECIFICATION left by the said William Temple Cooper at the Office of the Commissioners of Patents, with his Petition, on the 24th October 1872.

I, WILLIAM TEMPLE COOPER, of Oxford Street, in the County of Middlesex, Pharmaceutical Chemist, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN PREPARING OR MAKING UP MEDICATED AND OTHER EFFERVESCENT MIXTURES," to be as follows:—

My Invention consists in the preparation or making up of effervescing mixtures in the form of lozenges, which are manufactured by the aid of pressure in dies. These lozenges effervesce on being dissolved in the mouth, and form an agreeable means of administering effervescing mixtures, medicated for the treatment of ailments, and are especially valuable in cases in which it would be hurtful to take the quantity of liquid required for mixing an effervescing draught, as in the treatment of diabetes for

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instance. The lozenges may also be made without medicinal properties for use by public speakers and others for moistening the mouth or alleviating thirst. As the materials must not be wetted they cannot be made into a paste as in the ordinary method of making lozenges. I therefore take the effervescent mixture or materials and mix it with a little sugar, and if necessary gum or other glutinous substance, to give it coherence, and then compress it in a dry state in suitable dies to form lozenges, which may be flavoured or not.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said William Temple Cooper in the Great Seal Patent Office on the 24th April 1873.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM TEMPLE COOPER, of Oxford Street, in the County of Middlesex, Pharmaceutical Chemist, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-fourth day of October, in the year of our Lord One thousand eight hundred and seventy-two, in the thirty-sixth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said William Temple Cooper, Her special licence that I, the said William Temple Cooper, my executors, administrators, and assigns, or such others as I, the said William Temple Cooper, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN PREPARING OR MAKING UP MEDICATED AND OTHER EFFERVESCENT MIXTURES," upon the condition (amongst others) that I, the said William Temple Cooper, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

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NOW KNOW YE, that I, the said William Temple Cooper, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, reference being had to the Sheet of
5 Drawings hereunto annexed and to the letters and figures marked thereon thereon (that is to say):—

My Invention consists in the preparation or making up of effervescing mixtures in the form of lozenges, which are manufactured by the aid of pressure in dies. These lozenges effervesce on being dissolved in the
10 mouth, and form an agreeable means of administering such mixtures, medicated for the treatment of ailments, and are especially valuable in cases in which it would be hurtful to take the quantity of liquid required for mixing an effervescing draught, as in the treatment of diabetes for instance. The lozenges may also be made without medicinal properties
15 for use by public speakers and others for moistening the mouth or alleviating the thirst. As the materials must not be wetted they cannot be made into a paste as in the ordinary method of making lozenges. I, therefore, take the effervescible mixture, or the ingredients, for forming the same, and mix therewith small quantities of sugar, in powder, in the
20 proportion of about three parts of sugar to two parts of the mixture. A variable proportion of powdered gum may also be added, to give it coherence, but this is usually unnecessary, and I prefer to omit it. The mixture is then compressed in a dry state in suitable dies to form lozenges, which may be flavoured or not, as desired. The ingredients I
25 use to form the effervescible mixture are the same as those put in effervescing draughts by chemists, and consist usually of a carbonate of an alkali, such as soda or potash, with an acid (citric or tartaric, preferably the latter), or acid salt, both in a dry and powdered state.

Medicines or any flavoring matter which can be prepared in a dry state
30 and reduced to powder can be mixed with the ingredients to impart the desired medicinal qualities or flavor, as the case may be.

Dies of an ordinary description may be used, but the dies which I find answer best, and which I employ, are shown in central vertical section in the accompanying Drawing. These dies are preferably made in three
35 pieces to admit of the lozenge being readily withdrawn, and consist of an upper die or plunger *a*, a mould *b*, and a lower die *c*; the mould *b* is open throughout, and is closed at bottom by the lower die when in use,

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as shown. The faces of the two dies, which should be perfectly smooth or polished, may be hollowed or otherwise formed to produce a lozenge of any desired shape, that shown by the space left between the dies being preferred; as the upper and lower dies should not come in contact. The mould *b* being placed on the lower die is filled with the mixture, and the upper die is placed thereon, and pressed slightly to cause it to enter the mould sufficiently to guide it in its descent when placed beneath the plunger of a fly press, by which the ingredients are compressed into a solid form. The dies are then removed from the press, and the finished lozenge removed from the mould, which is again filled, and the operation repeated as before. 10

Having described the nature of my Invention, and the manner in which the same is to be performed, I declare that what I claim as my Invention to be protected by the herein-before in part recited Letters Patent is, the manufacture of effervescible lozenges from a mixture of 15 ingredients in a dry state by the aid of pressure in dies, substantially as set forth.

In witness whereof, I, the said William Temple Cooper have hereunto set my hand and seal, this Twenty-third day of April, in the year of our Lord One thousand eight hundred and seventy- 20 three.

W. T. COOPER. (L.S.)

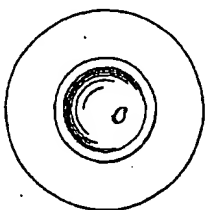
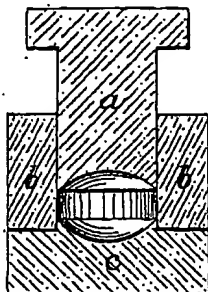
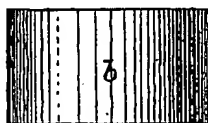
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COOPER'S SPECIFICATION.

(1 SHEET)



The filed drawing is partly colored.

Drawn on Stone by Malby & Sons.

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